

## WHAT IS CLAIMED IS:

1. A manipulator comprising:

a plurality of arm members whose attitudes can be changed; and

5 a manipulation target object manipulating hand mounted on said plurality of arm members through a connecting portion,

wherein rotation of said hand or similar motion is caused by changing the attitudes of said plurality  
10 of arm members.

2. The manipulator according to claim 1, further comprises an actuator being operatively coupled to at least one of said arm members and changing the

15 attitudes of said plurality of arm members,

wherein the attitudes of said plurality of arm members are changed by controlling said actuator, thereby causing rotation of said hand or similar motion.

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3. A manipulator comprising:

a plurality of rod-like arm members being arranged almost parallel; and

an actuator linearly acting to change attitudes  
25 of said plurality of arm members,

wherein the attitudes of said plurality of arm members are changed by expand/contract of said

actuator, thereby causing rotation of said hand or similar motion.

4. A minute object manipulating apparatus  
5 comprising:

a manipulator comprising a plurality of arm members whose attitudes can be changed, a manipulation target object manipulating hand mounted on said plurality of arm members through a connecting portion,  
10 and rotation of said hand or similar motion being caused by changing the attitudes of said plurality of arm members;

a magnifying observation device for magnifying observation of the manipulation target object and the  
15 hand, and

a remote controller for remote control on said manipulator.